Abstract:

An event-driven system that that provides scheduling and resource allocation for an internet serve. A cost-benefit model and user preferences are used to prioritize and schedule tasks. The present invention improves or optimizes a network server's performance by prioritizing tasks according to their importance, cost, and the system owners desires. The tasks are scheduled and resources (for example memory) are allocated to the tasks in accordance with their priority. Interlayer communication is used to provide a faster way to move data and to provide feedback as to the current state of a particular layer. Header parsing and peeking provides a way to make decisions earlier rather than waiting for the necessary information to bubble up to a higher layer. A thin thread model is used to handle tasks. The progress of the thin threads relative to each other is monitored and controlled.